

***Lycopodium dendroideum* Michx.**

treelike clubmoss

Lycopodiaceae (Club-Moss Family)

Status: State Sensitive

Rank: G5S2

General Description: Adapted from Wagner and Beitel (1993): Horizontal stems (rhizomes) subterranean. Upright shoots treelike, many branched, branchlets numerous and strongly differentiated, annual bud constrictions absent, leaves spreading, pale green below lateral branchlets, prickly needlelike, $1/8 \times <1/16$ inch. Lateral branchlets round in cross section, $1/4$ to $1/3$ inch in diameter, annual bud constrictions inconspicuous, leaves spreading to ascending, pale green, in 6 ranks, 2 upperside, 2 lateral, and 2 underside, equal in size, linear $1/16$ to $1/4$ inch \times $<1/16$ inch, margins entire, apex acuminate, lacking hair tip. Strobili sessile, 1-7 on tip of upright shoot, $1/2$ to $2 1/4$ inches. Sporophylls $1/8 \times 1/8$ inch, apex short, acute, abruptly narrowing.

Identification Tips: *L. annotinum* and *L. inundatum* have mostly unbranched stems and leafy, surface growing runners.

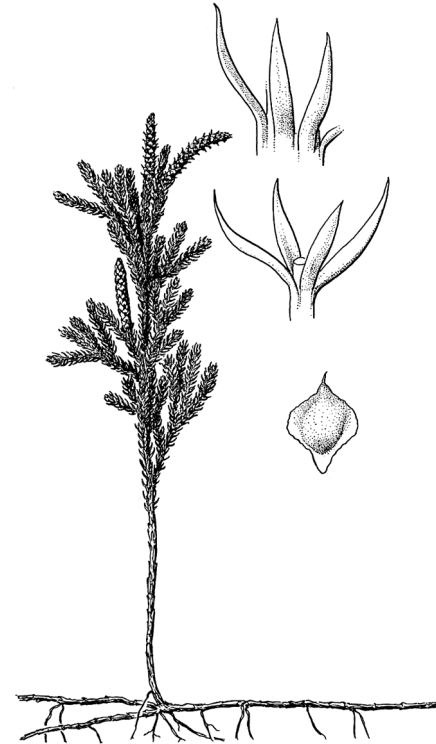
Phenology: Produces spores in June and July.

Range: Occurs from Alaska to Newfoundland, south to Washington, northwest Montana, Illinois, and Tennessee. In Washington, the species has been found in Whatcom, Snohomish, King, and Pend Oreille counties in the Western Cascades and Okanogan Highlands physiographic provinces.

Habitat: Most sites in Washington have been described as rock outcrops, talus or boulder fields, often with a significant moss and organic debris layer. Some sites are described as being in the ecotone between a meadow or wetland and the adjacent forest. Plants are often growing near the base of large boulders in a fairly dense ground cover. Associated species variously include *Acer circinatum*, *Vaccinium alaskaense*, *V. parvifolium*, *Gaultheria ovatifolia*, *Cladothamnus pyroliflorus*, *Menziesia ferruginea*, *Lycopodium annotinum*, *L. complanatum*, and *Linnaea borealis*. Slopes vary from essentially flat to relatively steep. Elevation ranges from 800 to 3600 feet in Washington.

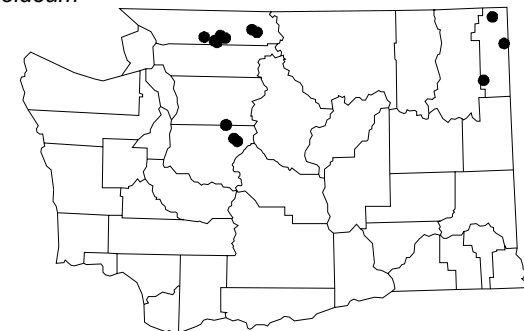
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Known distribution of
Lycopodium dendroideum
in Washington



● Current (1980+)
○ Historic (older than 1980)

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Photo by
Barb Bonner, USFS



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Ecology: The species appears to be able to tolerate a range of light conditions. Most sites are described as being in non-forested microsites. However, some sites have a significant high shrub cover and have been described as well-shaded. According to Lellinger (1985), the species is easily damaged by physical disturbance.

State Status Comments: There are fewer than 20 known occurrences in Washington.

Inventory Needs: Additional inventory is needed throughout appropriate habitats in Washington.

Threats and Management Concerns: Threats to the taxon include timber harvest and recreational activities that might lead to trampling.

References:

Hickey, J. 1977. The *Lycopodium obscurum* complex in North America. *American Fern Journal* 67(2): 45-48.

Hitchcock, C. L., A. Cronquist, M. Ownbey, and J.W. Thompson. 1969. *Vascular Plants of the Pacific Northwest, Part 1: Vascular Cryptogams, Gymnosperms, and Monocotyledons*. University of Washington Press, Seattle. 914 pp.

Lellinger, D.B. 1985. *A Field Manual of the Ferns & Fern-Allies of the United States & Canada*. Smithsonian Institution Press, Washington, D.C.

Wagner, Jr., W.H., and J.M. Beitel. 1993. *Flora of North America, Volume 2: Pteridophytes and Gymnosperms*. Treatment of the Lycopodiaceae Family. p. 18-37.